

Appl. No.: 10/643,780
Amdt. dated 05/31/2005
Reply to Office action of October 19, 2004

REMARKS

This Amendment is filed in response to the Office Action dated October 19, 2004. A Notice of Appeal was filed in the Application on February 28, 2005. This Amendment is lieu of an Appeal. This Amendment adds new Claims 7-24. As such, the application now includes Claims 1-24, with Claims 1, 6, 10, 15, 19, and 23 being independent claims. Applicant respectfully submits that all of the claims of the application are patentable and hereby requests reconsideration and allowance of the claims in light of the following remarks.

I. Claims 6-9 Are Patentable

In the previous Office Action, the Examiner noted that Claim 6 is allowed. Applicant has added Claim 7-9 as dependent claims to Claim 6. Applicant respectfully submits that Claims 6-9 should be allowable.

II. Claims 1-5 Are Patentable

Independent Claim 1 is rejected under 35 U.S.C. § 103(a) as obvious in light of U.S. Patent No. 6,663,455 to Lang. The Office Action alleges that welded joint of the '455 Lang balloon is a structural member as defined in the claim. The Office Action further alleges that the balloon of the '455 Lang patent is naturally buoyant. Applicant respectfully disagrees.

The claims invention uses a structural member coupled to an inflatable chamber. In one embodiment of the present invention, the structural member has a weight sufficient to counteract the lift caused by the gas located in the chamber. This renders the apparatus neutrally buoyant, such that if placed at a certain height above ground, the apparatus will typically remain at that position. The '455 Lang patent nowhere teaches or suggests that the balloon of the '455 Lang patent is neutrally buoyant.

Applicant continues to disagree that the weld is a structural member as defined in the claim. In light of the above, Applicant respectfully submits that Claims 1-5 are patentable.

III. Claims 10-14 Are Patentable

Independent Claim 10 specifically recites that the structural member has a selected weight that counteracts a lift caused by gas in the chamber, such that said apparatus is substantially neutrally buoyant. As stated above in Section II, the '455 Lang patent no where teaches or suggests that the welded joint is of sufficient weight to counteract the lift of the gas in the balloon.

IV. Claims 15-18 Are Patentable

Independent Claim 15, among other things, recites that the structural member is a separate structure from that of the flexible material and is coupled to the flexible material. This aspect of the claimed invention is no where taught or suggested by the '455 Lang patent. The '455 Lang patent no where teaches or suggest that the weld joint is a separate structure from that of the flexible material of the balloon. Instead, the welded joint is the two ends of the flexible material that form the chamber welded together.

V. Claims 19-22 Are Patentable

Independent Claim 19 recites, among other things, that the structural member is less flexible than the flexible material for maintaining a desired shape of the apparatus. The relative rigidity of the structural member aids in maintaining the desired shape. This is no where taught or suggested by the '455 Lang patent. The '455 Lang patent no where indicates that the weld is less flexible than the remaining balloon material.

VI. Claims 23-24 Are Patentable

Independent Claim 23 recites that the structural member has opposed ends that are joined together, such that the structural member circumscribes the chamber and is coupled to the chamber by at least one strip. The weld joint is not connected to the chamber by a strip. Instead, the weld joint is the mere joining of the two halves of the material making up the balloon.

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CONCLUSION

In light of the newly added claims and the remarks above, Applicant respectfully submits that Claims 1-24 of the application are patentable. Applicant therefore respectfully requests that a Notice of Allowance be issued in the application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

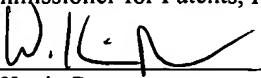


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